CLAIMS

I claim:

1. A method for carrying energy from one location to another, comprising;

obtaining aluminum metal from a first location;

reacting said aluminum metal with water in a catalytic reaction,
thereby splitting said water into hydrogen, oxygen and
forming a clean aluminum derivative;

converting said hydrogen into energy at a second location; and returning said aluminum derivative to an aluminum foundry for conversion thereof to aluminum metal.

- The method as claimed in **claim 1**, wherein said clean aluminum derivative comprises Al₂(OH)₃, Al(OH)₃, Al₂O₃ or a mixture thereof.
- A system for carrying energy from one location to another, comprising,
 - means at a first location for forming aluminum metal from a first portion of aluminum derivative;
 - means for reacting aluminum metal with water in a catalytic reaction for splitting water into hydrogen and oxygen and forming a second portion of aluminum derivative;
 - means for converting said hydrogen into energy at a second location, and
 - means for transporting said second portion of aluminum derivative to said first location and forming aluminum metal therewith.

- 4. A method for carrying energy from one location to another, comprising;
 - using a first energy at a first location, forming aluminum metal from a first portion of aluminum derivative;
 - reacting said aluminum metal with water in a catalytic reaction, thereby splitting said water into hydrogen, oxygen and forming a second or subsequent portion of aluminum derivative;
 - converting said hydrogen into a second energy at a second location; and
 - using said second or subsequent portion aluminum derivative, repeating said steps of forming, reacting and converting.
- 5. The method as claimed in **claim 4**, wherein said aluminum derivative comprises Al₂(OH)₃, Al(OH)₃, Al₂O₃ or a mixture thereof.
- 6. The method as claimed in **claim 4**, wherein said step of converting is carried out in an hydrogen fuel cell.
- 7. The method as claimed in **claim 4**, wherein said step of converting is carried out in an internal combustion engine.